

Abstract of the Disclosure

Multi-tubular reactors for fluid processing incorporate reactor tubes containing thermally conductive monolithic catalyst structures with relative dimensions and thermal expansion characteristics effective to establish both a non-interfering or slidably interfering fit between the monolith structures and the reactor tubes at selected monolith mounting temperatures, and geometries at reactor operating temperatures such that the operating gaps between tubes and monoliths under the conditions of reactor operation do not exceed about 250  $\mu\text{m}$  over tube sections where high heat flux to or from the monoliths is required..